

California Department of Public Health Zero-Based Budgeting Project

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Outline

- Why Zero-Based Budgeting (ZBB)?
- What is ZBB?
- CDPH's ZBB Approach & Method
- ZBB Team Findings & Recommendations
 - WIC
 - BabyBig®
 - Contracting
- ZBB Lessons Learned
- ZBB Next Steps for CDPH
- Questions?

Why ZBB?

- **December 2011** –Executive Order B-13-11 directs Department of Finance (DOF) to modify budget process to increase efficiency and focus on outcomes.
- **May 2012** - CDPH selected as one of four state departments to pilot ZBB.
- **September 2012** - CDPH initiates ZBB pilot project.
- **December 2012** – CDPH completes initial ZBB pilot.

Budget Methods

Comparison Categories	Traditional Budgeting	Zero-Based Budgeting	Performance-Based Budgeting
Method	<ul style="list-style-type: none"> Use prior year as baseline budget 	<ul style="list-style-type: none"> Start from scratch – similar to a BCP for an entire program 	<ul style="list-style-type: none"> Identify desired results and then determine cost to achieve them
Budget Changes	<ul style="list-style-type: none"> CODB or other incremental cost increases OR eliminate one-time appropriation 	<ul style="list-style-type: none"> Each business activity / function is reassessed to determine if it is the best use of limited resources 	<ul style="list-style-type: none"> Less focus on line-item spending and more on cost to achieve desired results
Strategic Plan Nexus	<ul style="list-style-type: none"> Not tied to strategic plan 	<ul style="list-style-type: none"> Not tied to strategic plan. Emphasis on cost of inputs, not outcomes 	<ul style="list-style-type: none"> PBB should be based on strategic plan, with spending directly tied to strategic plan goals Emphasis on results / outcomes
Benefits	<ul style="list-style-type: none"> Easiest to develop 	<ul style="list-style-type: none"> Effective way of reducing costs – doing more with less 	<ul style="list-style-type: none"> Ties spending with strategic goals
Challenges	<ul style="list-style-type: none"> Hard to determine whether use of funds is effective or not Does not spur innovation Overemphasis on inputs vs. outputs or results 	<ul style="list-style-type: none"> Significant workload to review every aspect of program spending Overemphasis on cost per widget and not on outcome or results 	<ul style="list-style-type: none"> Significant workload upfront to identify desired results Difficult to identify appropriate measures to show causal link between spending and results

Benefits of ZBB to CDPH

- Consistent with CQI / Accreditation
- Showcase program effectiveness
- Generate new ideas for program improvement
- Provide an objective method for determining how we reallocate resources or make cuts
- Help justify to stakeholders how we arrived at difficult budget decisions
- Can justify fee increases
- Improve program credibility with control agencies

ZBB Selection Process

CDPH used various criteria to determine the programs to select for ZBB:

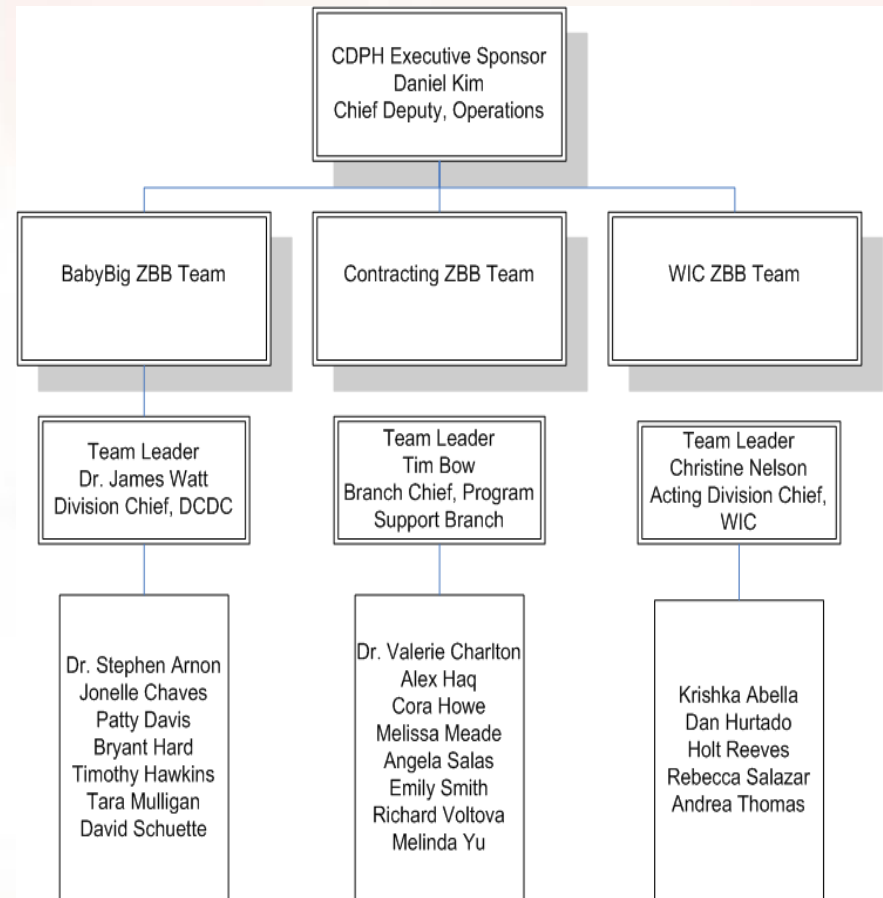
- **Different functions** - i.e. enforcement, technical assistance, contracting, etc.
- **Different fund sources** - GF, special funds, federal funds
- **Different programs** – i.e. different Centers, Divisions or Offices
- **Different types of spending** - i.e. State Operations vs. Local Assistance
- **Has resonance with public / stakeholders** – tells a good and positive story.
- **Capacity** – Program has SMEs, enthusiasm, and ability to do ZBB.
- **Urgency** – Program faces budget constraints now. Forced to do more with less.
- **Scrutiny** – Program can withstand a *relatively* high level of scrutiny.
- **Benefit** – ZBB can showcase how program has done more with less.
- **Concrete** – Programs can quantify “inputs” and “outputs” over a period of time.

Win-Win Approach to ZBB

- ***Women, Infants and Children (WIC)*** - Wants to justify need for additional positions for its vendor management unit.
- ***BabyBIG®*** – Wants to justify and accurately calculate fee increase necessary to cover operating costs.
- ***CDPH Contracting*** – CDPH's contracting functions have made significant improvements in past 2 years. But pursuing continuous quality improvement to streamline contracting process, lower administrative costs, and expedite contract execution.

ZBB Team Structure

- **Executive Sponsor** - Developed ZBB method, project schedule, reviewed team deliverables, wrote ZBB report.
- **Team Leader** – Led their respective ZBB Teams, which met weekly. Facilitated team meetings and produced the team deliverables.
- **Team members** – Program managers and staff, plus budget and program admin staff. ZBB Team members conducted research, analyzed data, prepared materials, and identified findings and recommendations.



CDPH's ZBB Method

- **Hybrid Approach** – combined different elements of traditional, performance-based, and zero-based budgeting methods
 - **Traditional** - the ZBB Teams used prior year and current year budget information to build a “baseline budget”
 - **Performance** - Each ZBB Team identified goals or metrics to better link program spending with program outcomes.
 - **Zero-Based** - ZBB Teams identified the various functions performed in their programs and calculated the cost to perform these functions.
- **Continuous Quality Improvement** – solicit staff input, collect and analyze data, find ways to improve processes and better measure performance

ZBB Questions

- ***Program objectives*** – What do we hope to achieve with what we have?
- ***Value chain*** - What are the key functions within a program?
- ***Cost*** - How much does it cost to perform each of these functions along the “value chain”
- ***Unit Cost*** - What does it cost to produce each unit of output?
- ***Efficiencies*** – How can we make the best use of limited resources?
- ***Effectiveness*** – What should we do to best achieve our program goals?
- ***Reallocation*** - Can we spend differently to better achieve these goals?
- ***Evaluation*** - How do we know what works? What systems are in place to measure outcomes and analyze data to make better program decisions?

ZBB Process

Sept. – Oct. - Identify Program's Value Chain

- Identify main functions it performs that add value
- Get Baseline Budget Data (i.e. get Budget vs. Actuals \$ and PYs; trend this out)

Oct. – Nov. – Develop Metrics for Program or Functions within Program.

- **Volume** – how much? **Speed** – how quickly?
- **Accuracy / Quality** – how well? **Unit Cost Per Input / Output** – how costly?

Nov. – Dec. – Identify Data Sources

- Define data elements and source of data.
 - Ensure accuracy in data collection and analysis.
 - Identify trends / outliers and other significant data.
- How does this data help inform decision making or determine resource allocation?

Dec. – Jan. – Draft ZBB Findings

Jan. – Mar. – Write ZBB Report

Budget Drill: 20% Increase

Once the ZBB Teams calculated the value chain costs and unit costs, they performed three budget drills.

- What would you do with 20 percent more funding?
 - The teams had to identify how they would spend these additional funds and what outcomes they could generate.
 - By starting ZBB with a drill to increase funding, we got program excited about ZBB, while also identifying new methods and approaches to improve program outcomes.

Budget Drill: 50% Decrease

Next, the teams were asked to identify what they would do with a 50 percent reduction to their program budgets.

- The teams were tasked with identifying staffing, process, and other operational changes they would make to mitigate the programmatic impact of these reductions.
- Making drastic reductions forced the ZBB Teams to take a critical look at the activities performed within the program area.
- The ZBB Team members identified core program functions, the marginal value of each increment of staff or other resources, and ways to mitigate the programmatic impact of any reductions.

Reallocation Drill

- With these two drills completed, each ZBB Team was tasked with identifying programmatic changes or resource reallocations they would make as a result of their analysis.
- That is, how might they reallocate resources or provide different levels of service assuming no change in funding?
- In the course of completing these exercises, each the ZBB Teams found that they would keep some of the new activities identified in the 20 percent drill – *even when they had to make drastic reductions in the 50 percent drill.*

WIC ZBB Team

- WIC Program - federally funded nutrition assistance program for low-income pregnant, breastfeeding and post-partum women and children under age five who are at nutritional risk.
- WIC offers nutrition education, referrals to healthcare and other services, as well as checks to purchase nutritious foods at retail grocery stores.
- USDA provides these funds to State agencies to pay for WIC foods, nutrition education, and administrative costs.
- CDPH manages the nation's largest WIC program (\$1.3B) to nearly 1.5 million participants each month.

Goal: Improve Health and Nutrition Status of WIC-Eligible Families						
<i>Provide Nutrition CD Services</i>	<i>Offer Healthcare and Other Service Referrals</i>	<i>Provide a Variety of Supplemental Foods that Meet Nutrition Standards</i>	<i>Maximize Participation of New and Current Families</i>	<i>Ensure Program Integrity and Accountability</i>	<i>Manage Food Cost Containment</i>	<i>Ensure Continuous Quality Improvement</i>

WIC ZBB Findings

- ***Emphasis on process vs. outcomes*** – Many of the measures of “success” focused on internal processes rather than program outcomes.
- ***Internal processes too disbursed*** – Several WIC processes were disbursed, resulting in duplication and lack of coordination.
- ***Heavy emphasis on monitoring local lead agencies*** – WIC has a high level of staff resources dedicated to contract compliance and monitoring of our local agencies compared to other CDPH programs.
- ***Lack of resources for vendor integrity and food cost containment efforts*** – WIC’s vendor integrity and food cost containment efforts lacked sufficient resources.

WIC ZBB Recommendations

- ***Develop outcome measures*** – Develop a balance scorecard to evaluate program effectiveness (i.e. measures for health outcomes, program integrity, cost containment, WIC participation, and vendor access).
- ***Leverage other program data to evaluate program effectiveness*** – With the MCAH Division, WIC will study maternal child health outcomes to identify ways to improve WIC’s “return on investment”.
- ***Consolidate functions within the WIC Division*** – Consolidate some disbursed functions within WIC and clarify roles and responsibilities between WIC branches.
- ***Reallocate staff resources for vendor integrity and program evaluation*** – WIC is re-evaluating its units to identify where it can reallocate existing staff resources to generate better results (i.e. vendor compliance).

BabyBig® ZBB Team

- The BabyBIG® program produces the orphan drug BabyBIG®, which is a human-derived botulism antitoxin approved by the FDA for the treatment of infant botulism.
- BabyBig® was originally developed by CDPH staff, who now work with several contractors to produce, test, and distribute BabyBIG®.
- The BabyBIG® is fee-supported and provides life-saving and cost-effective treatment paid by recipients of the medication or their health insurers.

BabyBig® Value Chain						
<i>Prevention –</i> Conduct outreach and other prevention efforts to reduce incidents of infant botulism	<i>Compliance–</i> Obtain regulatory approvals and maintain regulatory compliance	<i>Production –</i> Oversee BabyBig® production	<i>Distribution –</i> Oversee BabyBig® distribution	<i>Laboratory Analysis –</i> Carry out advanced laboratory analyses to diagnose and increase scientific understanding of infant botulism	<i>Surveillance & Research –</i> Collect, analyze, and disseminate surveillance data and other information to advance scientific understanding of infant botulism and related diseases	<i>Collection –</i> collect revenue from fee payers

BabyBig® ZBB Findings

- ***Need to Consider Entire Product Cycle Costs*** – . BabyBIG® has fixed annual appropriation, but its production cycle takes roughly five years and operating costs fluctuate significantly depending on the type of activities performed during the fiscal year.
- ***BabyBIG® Expenses Must Be Carefully Monitored*** – Since BabyBIG®'s production costs fluctuate significantly, it must carefully monitor spending and stagger costs from one budget cycle to the next.
- ***Pre-Production and Production Costs Have Increased Significantly*** – Lot 6 will cost 83 percent more than Lot 5, which was produced in 2010.
- ***The Current BabyBIG Fee Will Not Cover Production Costs*** – Current fees cannot cover the cost to produce Lot 6.

BabyBig® Findings

- ***Collection of More Blood Plasma Is Critical*** – BabyBIG® can produce more product and reduce the per patient treatment cost if more blood plasma can be obtained.
- ***Demand for BabyBIG® May Exceed Vaccine Supply*** – The ZBB Team's analysis of BabyBIG® utilization suggests that the amount produced in Lots 5 and 6 may be insufficient to meet BabyBIG® demand.
- ***Prevention Efforts Could Be Cost-Effective*** – Prevention of infant botulism could reduce demand for BabyBIG®, program costs, and costs to the health care system. However, little is known about what prevention strategies would most effectively reduce the incidence of infant botulism.

BabyBig® Recommendations

- ***Strengthen Administrative Support*** – BabyBIG® should reallocate a vacant PY to focus on program administration, particularly in the area of contract negotiation and execution.
- ***Raise BabyBIG® Vaccine Fee*** – BabyBIG® should increase its vaccine fee by as much as 50 percent to cover the anticipated cost to produce Lot 6.
- ***Produce More Blood Plasma*** – BabyBig® should actively identify ways to collect more blood plasma to reduce the average cost per vaccine.
- ***Monitor Utilization*** – Given the recent spike in BabyBIG® utilization, the program must carefully monitor utilization at the statewide, national, and international levels to determine if the increase last year was an anomaly or part of a new trend.

BabyBig® Recommendations

- ***Develop Criteria and Policies for BabyBIG® Distribution*** – Given the risk that Lot 6 may not produce a sufficient supply of BabyBIG®, the program should develop criteria or policies to determine BabyBIG® distribution.
- ***Increase Prevention Efforts Through Partnerships*** – BabyBIG® should collaborate with other CDPH programs to identify ways to educate parents to prevent infant botulism.
- ***Investigate Handling Fee*** – BabyBIG® should investigate whether it may charge a handling or distribution fee to other states or countries.
- ***Consider Project Budget for BabyBIG®*** – In order to better manage and monitor its production costs and prevent the need for BCPs from year-to-year, BabyBIG® should have a continuous appropriation so it may carryforward unspent appropriation from one fiscal year to the next.

Contracting ZBB Team

- CDPH spends \$500+ million annually in contracts with 3,000+ local health departments, community-based organizations, and other vendors.
- Contracting is how CDPH primarily provides public health services.
- CDPH chose the contracting function for ZBB because the Department had been criticized for contracting delays and errors previously, and we wanted to continue making improvements.

Contracting Value Chain						
<i>Pre-Development</i> – plan process to award funds	<i>Development</i> – develop contract scope of work and budget	<i>Award</i> – evaluate proposals of select awardees	<i>Final Execution</i> – generate necessary approvals from control agencies	<i>Implementation</i> – notify and instruct contractors on contract terms and conditions	<i>Monitoring</i> –review contractor performance and assess whether contractor is meeting contract goals and objectives	<i>Compliance</i> – ensure contractor complies with contract terms and conditions

Contracting ZBB Findings

- ***Cost of Contracting Product Cycle*** – Contracting production cycle can take 3+ years, with staff working on different contracting activities throughout the cycle.
- ***Wide Variation in Contracting Costs Among Programs*** – The average cost to process a contract varied significantly. One program cost three times as much as another to execute a contract.
- ***High Cost To Contract Amendments*** – The program with the most contract amendments had the highest costs while the program with the fewest contract amendments had the lowest contracting costs. Contract amendments cost much more to execute than originally assumed.
- ***Heavy Emphasis On Compliance*** – While compliance is critical, programs may generate more value by redirecting resources from compliance to other programmatic activities without sacrificing program integrity.
- ***Relatively Few Resources For Technical Assistance*** – More technical assistance could help contractors better meet program goals and objectives.

Contracting Recommendations

- ***Do It Right The First Time*** – Invest more time and resources upfront. By refining the contract scope of work and other terms and conditions, programs can avoid costly and unnecessary contract amendments. Move to multi-year contracts.
- ***Reduce Compliance Costs*** – Look to other CDPH programs with lower compliance costs to determine what practices and processes they have adopted internally.
- ***Focus on Program Goals and Objectives*** – CDPH programs should refine scopes of work and data collection requirements for contractors to better evaluate their contractors' ability to meet program goals and objectives.
- ***Improve Linkage Between Contracting and Program Evaluation*** – Invest in ways to evaluate how well contractors meet program outcome goals.
- ***Offer More Technical Assistance (TA)*** – Provide more TA (i.e. best practices, performance measures, data collection and analysis, etc.) to contractors.
- ***Explore Other Ways To Allocate Funds*** – Consider other ways to allocate funds besides contracts. For example, grants offer more flexibility and less administrative burden, but also less control.

ZBB Lessons Learned

- ***ZBB Should Be Win-Win*** - ZBB participants must see a benefit to their effort. Take a win-win approach to generate enthusiasm and and mitigate resistance.
- ***Incorporate Performance-Based Budgeting Concepts*** - Introduce the concept of program goals and outcomes early on. Have the ZBB team understand the program's mission and goals before evaluating staff and other program costs. Focus on the cost to achieve program outcomes.
- ***Start With Programs That Are Not General Fund Supported*** – This eliminate the perception that ZBB is just a cost-cutting drill and makes clear that ZBB's purpose is to identify the best use of available resources.
- ***Emphasize Reallocation, Not Reduction*** – The 20% and -50% Budget Drills led staff to identify creative and innovative ways to improve service delivery and program outcomes – *using their existing resources*.

ZBB Lessons Learned

- ***Develop the Program's Value Chain*** - Identifying the value chain helped us understand the relationship between program function (i.e. chain) and cost, which helped us determine whether resources were over- or under-allocated.
- ***Map the Product Cycle*** – An annual budget may explain how program costs are itemized, but it doesn't show how program costs are spent along that program's product cycle. By mapping the “product cycle”, a program can then calculate the “unit cost” for each stage in producing its “product” or service.
- ***Calculate the Unit Cost Per Output*** – Calculating unit cost proved difficult – esp. when “output” was hard to quantify. Nonetheless, trying to tie program costs to desired outcomes forced us to think harder about the value of a program activity.
- ***Don't Let The Perfect Be The Enemy of The Good*** – The ZBB Teams did not itemize every cost and reconcile every figure., given time constraints and limited staff resources. We focused on concepts, analysis, and new ideas.

ZBB Next Steps for CDPH

- ZBB is part of CDPH's larger push towards CQI
- CDPH was pleased with our 3 ZBB Team's efforts
- With limited resources and time, each ZBB Team made significant inroads to improve their programs
- While the ZBB Pilot has concluded, our CQI efforts continue:
 - **WIC** – Developing new vendor management and cost containment strategies
 - **BabyBig®** - Changing business process, looking to lower production costs and generate more revenue
 - **Contracting** – Form Contract Simplification Workgroup to streamline contracting process and improve contractor performance

ZBB Next Steps for CDPH

CDPH wants to continue ZBB projects in other program areas

- Evaluate other ZBB efforts by CalHR, Consumer Affairs, and CalTrans to identify best practices and modify our method
- Receive further direction from the Administration

However – a superficial ZBB effort is a wasted effort

- ZBB requires a high level of executive commitment and investment in staff time and resources
- Must be careful to weigh benefits of ZBB against its costs, given time spent on ZBB could be time spent on a potentially higher program priority

But – with a high level of commitment and intensive effort, ZBB can reap significant benefits in a short timeframe

Questions?